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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,423	11/20/2001	Fumihito Goto	862.C2449	8572

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EXAMINER

LEE, TOMMY D

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/988,423	Applicant(s) GOTO ET AL.	
	Examiner Thomas D. Lee	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/2002</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites a *computer-readable storage medium* storing a *printer driver*.

This claim does not make sense, since a computer-readable storage medium obviously cannot store a physical structure.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-8 and 10-21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,072,906 (Sato).

Regarding claims 1-4, Sato discloses an image processing apparatus for applying image processing to multilevel image data input thereto, comprising: dividing means for dividing the input multilevel image data into pixel blocks each comprising a plurality of pixels (input image data a divided into 2x2 pixel blocks (column 3, lines 19-41)); conversion tables having a plurality of items of conversion data, each of which is corresponding to a pixel position in each pixel block obtained by division by said dividing means (relationship between input pixel data and output code data at respective coordinates of a divided input pixel shown in Fig. 7A (column 3, lines 50-60)); and conversion means for converting, by referring to said conversion tables, each item of pixel data of each pixel block obtained by division by said dividing means, into data corresponding to pixel data in the pixel block (input pixel data converted to code data according to relationship shown in Fig. 7A (column 3, line 61 – column 4, line 2)); wherein the conversion data of each of said conversion tables has been set in such a manner that an average value of the data in each pixel block converted by said conversion means, takes on a value that is based on the pixel data within the pixel block (output signal a' is an average of input signals a (column 4, lines 21-28)). The conversion data is data for converting luminance data to density data (8-bit (luminance) input image data converted to code data, which in turn is output as dot patterns of varying density (column 4, lines 29-40; Fig. 8)); and for converting density data in

accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted by said conversion means (code data decoded and converted to dot patterns stored in the output device (column 4, lines 21-28)). The conversion tables output the data upon having the multilevel image data input thereto; wherein the data differs depending upon the position even if the multilevel image data is same (for given input image data, output code differs as coordinates change (column 3, lines 50-60)).

Claims 5-8 are method claims corresponding to above-rejected apparatus claims 1-4, respectively. The means for performing the method steps recited in claims 5-8 are disclosed in Sato, as set forth above.

Claims 10-13 recite a print control apparatus to which multilevel image data is input for generating printing data to control an image printing apparatus, which comprises the limitations recited in above-rejected claims 1-4, respectively, and further recites print-data generating means for generating print data, which is for being printed by said image printing apparatus, based upon the data converted by said conversion means. Sato discloses this limitation (output device may be a printer (column 2, lines 37-40)).

Claims 14-17 are method claims corresponding to above-rejected apparatus claims 10-13, respectively. The means for performing the method steps recited in claims 14-17 are disclosed in Sato, as set forth above.

Claims 18-21 recite a printer driver to which multilevel image data is input for generating print data, comprising modules for performing the method steps recited in

above-rejected claims 14-17, respectively. These modules are disclosed in Sato, as set forth above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 9, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato.

Claims 9, 22 and 23 recite computer-readable storage medium storing a control program for performing the method steps recited in above-rejected claims 5, 14 and 18, respectively. While a computer-readable medium is not explicitly disclosed in Sato, one of ordinary skill in the art would have recognized that computer-readable media, such as on-board or portable memory devices, have been well known and used to store

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software programs enabling a computer to perform processing tasks in general, and it would have been obvious to provide a computer-readable medium for performing the method steps as recited in the claims, so that the method steps may be performed on a computer without requiring specific processing hardware.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Lee whose telephone number is (571) 272-7436. The examiner can normally be reached on Monday-Friday (7:30-5:00), alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas D. Lee
Primary Examiner
Art Unit 2624

tdl
August 31, 2005